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ANNUAL REPORT BY VICE PRESI...

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ANNUAL REPORT BY VICE-PRESIDENT

HERBERT G. OGDEN.

(Presented to the Society January 23, 1891.)

Very few of the geographic events of the past year have been of such an essential nature as to require a reference in this report, and yet some of them are of surpassing interest. Fraught, as many of them are, with policies that must have a marked influence in the future in developing the still uncivilized regions and increasing the prosperity of the established communities, they present a field for research that has already attracted the political economist, enlisted the labor of the philanthropist, and excited the cupidity of commerce.

The division of Africa, as commonly referred to, has naturally aroused the most profound attention of all civilized peoples. But few have attempted to penetrate the darkness of the future with predictions of the ultimate results of the partition of this great continent. That civilization will eventually follow, we may feel reasonably assured; and if we could but see the end in the establishment of powerful nations without the repetition of history in the quarrels, strife, and war that have preceded the settled order of political progression on other continents, we might well hope the human had improved his humanity and believe we had entered the border land of the millennium that enthusiasts have so long held up to us as the final stage in the progress of man.

The professions of the African powers are peaceful, but in the division of these unknown millions of square miles it requires but little penetration to discern the elements for protracted strife in future generations. The agreement between Germany and England, by far the most important of the compacts to extend the protection of European nations to particular zones not embraced in the Kongo Free State, exemplifies in a marked degree the disputes that may arise, and with what avidity the civilized nations have sought mutual recognition of their right to dominate in specified spheres. As might have been expected, however, in an attempt to divide great areas that have not even been mapped, and with an economic value still to be determined, the boundaries of the spheres are oftentimes indefinite, and instead of settling disputed questions, but defer them to the generations yet to come. There are colonies, protectorates, and spheres of influence, with boundaries sometimes so ill defined that we may conceive they have been purposely left indeterminate, that at the proper time the most powerful may push their frontiers to include regions that the adventurous may proclaim desirable acquisitions.

The area of Africa is computed at nearly 12,000,000 square miles; and about 9,500,000 square miles are claimed by the powers as under their control, protectorate, or influence within the tentative boundaries that seem to have been very generally agreed upon. Fully 83 per cent. of this area has been acquired during the past fifteen years. We have seen during this period the possessions of Spain increase from 3,500 to 200,000 square miles; England, from 280,000 to 2,000,000; France, from 280,000 to 2,300,000, while Italy and Germany, that were without a square rod a few years ago, now claim extensive areas—Italy about 360,000 and Germany over 1,000,000 square miles. Portugal, though not less grasping, seems to have been less successful, as she has acquired less than 100,000 square miles. Perhaps having encountered a more powerful nation in her path may account for this, but the total area within her "sphere" is nevertheless not insignificant, reaching as it does over three-quarters of a million of square miles. In the Kongo Free State we find another million square miles, which many believe will ultimately become a Belgian colony; but in any event, occupying as it does the larger part of the basin of the Kongo, it is destined to be the scene of an activity in the development of the continent fruitful of the most important results.

We must remember, too, that England now occupies Egypt, and that with her protectorate over Zanzibar and her sphere of influence to the northward of that state, that has not yet been limited, it is not improbable that she will eventually reach the Mediterranean, establishing a more extended influence in northern Africa than even that which she has exerted over the southern end of the continent. Should England's influence in the north result in the occupation of all the territory that is apparently within her "sphere," we may conceive some of the complications likely to arise, and see the realization of the proviso in the recent Anglo-German agreement granting her the right of way to build a railroad through the German sphere east of Lake Tanganyika. Englishmen have expressed grave doubts as to the wisdom of conceding to Germany this large territory east of Lake Tanganyika, claiming it was rightfully theirs through discovery, and as they are estopped from intercommunication to the westward of the lake by the boundaries of the Kongo Free State, view with alarm the possible intricacies of the situation when they may attempt to exercise their rights in the German sphere. But doubtless there are compensating advantages derived from the agreement, as many earnest and able men commend the concessions made by their government in view of the greater influence that has been acquired in other regions where it has not heretofore been generally conceded.

South of the Zambesi there are still other elements that promise fruit for strife ere the region is recognized as settled to the satisfaction of the contending powers. Boundaries now but illy defined must be adjusted before the venturous pioneers shall know to which nation their lands belong, and we may well foresee in the sections where exploration develops riches and abundance that the peaceful measures of arbitration will fail to satisfy the claims to dominance. We have, too, an element in the south African republic that must ere long find vent in a more pronounced movement to secure a seaport than that made a few years ago. The fact that Delagoa bay, the finest harbor on this section of the African coast, is the natural outlet for these people and for the extensive regions adjacent that may eventually come under their control, points to this bay becoming a bone of contention if the powers interested do not conclude the present arbitration on a just and satisfactory basis. On the lower Niger there are also points of friction, and even the sands of the great

Sahara are becoming the subject of dispute in the anxiety to establish power that may wield an influence in distributing the wealth that may be found.

From what regions of the continent the future wealth is to be derived we cannot predict. The uncertainty is, perhaps, the consideration in the problem of development that leaves vast areas with undefined boundaries, though nominally within the sphere of influence of a specified power. There are fully 2,000,000 square miles yet to be explored before we may know the general geographic features of the continent, and a much larger area that must be examined and studied by experts before any reasonable estimate of its value and adaptability to the schemes of civilized man can be approached. The great strides that have been made in recent years in seizing upon the unclaimed territories doubtless received the larger impetus from the revelations in Mr. Stanley's explorations. The Kongo is recognized to be a natural highway leading to a region believed to be susceptible of remunerative development. Preparations have been made to construct a railroad around the falls in the lower river to overcome the greatest practical obstacle to its fullest utilization. We may reasonably expect commercial enterprises on extensive scales to speedily follow the completion of this road and hasten the acquisition of a more perfect knowledge of the Kongo basin, not within the boundaries of the Kongo Free State alone, but also the region drained by the great tributaries from the north and the sections naturally dependent upon this great river system.

The Kongo is but one line on which the general advance is being made upon the interior of the continent. The French seem determined upon extending their influence on the northern and western coasts, and the Portuguese, English, Germans, and Italians are pronounced in their efforts on the eastern coast, while the English are careful, too, of their interests from the south, and seem to have almost unlimited scope north of Victoria Nyanza. The progress of the advancing colonization will necessarily be accelerated or retarded by the geographic conditions encountered in the different regions. In some, it may be the difficulty of maintaining communication with older settlements; in others, that the land is unproductive or the probable gains not sufficiently attractive; and lastly, the great density of the native population in certain districts is likely to prove a hindrance that it may require many years to overcome. On the lower Niger, in

the British west African colony, in Egypt, in Natal, on the shores of Lake Victoria Nyanza, and in parts of the Kongo basin, it is estimated that the native population is nearly as dense as in India; but the climatic conditions are so unfavorable that it is not probable that any attempt will be made to advance in these regions for a more serious purpose than to maintain a foothold for the future. The more attractive districts for the white man are thought to be much less populous, and are not scourged with such an unhealthy climate.

Even now the nations of Europe are planning to enter these great unknown fields. There is an expedition on the western coast, under the explorer Cameron, investigating the conditions for trade; and the rumors of the organization of wealthy companies to work in the several "spheres of influence" but impress upon us the fact that the Old World is moving to lay bare the resources of the great continent, and we may hope with an energy that will overcome all obstacles, open new fields to mankind, and relieve the nations of the horrors of human traffic in which they have been too long encouraged. But it would be vain to hope there will be no bloodshed, for where man has great rival interests history teaches us they are settled by the sword; and we can hardly believe the peaceful methods of arbitration will have gained such sway as to rob history in her predictions as to the regeneration of "darkest Africa."

On the western hemisphere also there have been events of most interesting import, in that they foreshadow a closer union of the people of the two continents. Unlike Africa, in that this hemisphere has been under the control of the more intelligent races of men for several generations, so that discovery and the cruelties attending the establishment of supremacy are virtually questions of the past, the interests involved are on a different plane, though not on a higher moral sphere, as we can conceive no greater Christian duty than the regeneration of the uncivilized, but a sphere affecting the relations of established communities that for generations have been wielding an influence in the world's history on principles recognized to be the product of civilization. The metes and bounds of the states are well defined, with few exceptions, and the ambition for territorial accretion has been so greatly subdued by the misfortunes of their earlier histories, that the time seems to be propitious for advanc-

ing those greater questions of public policy that naturally arise from their community of interests. The proposition to convene a Pan-American congress was for several years viewed with suspicion, and was even designated by some as chimerical, but the suggestion took root. Many thoughtful men believed such a conference would lead to a better understanding between the people of the states represented, and that, while the fruits might not be made immediately apparent, the foundation would be laid for lasting benefits. The interest manifested by the different nations and the high character of the representatives they sent to the conference clearly indicated that deliberations were to be undertaken in good faith. We need not follow the deliberations of this body, nor even revert to the many questions discussed. Since the adjournment we are beginning to appreciate some of the results. The recent establishment of the "Bureau of the American Republics" is one of the first practical evidences of work accomplished. This bureau is maintained by proportionate contributions from the nations represented in the congress, and is intended to be the medium for collecting and disseminating information on commercial, industrial, and cognate subjects. If we consider the different characteristics of the people of the two continents—their manners, customs and methods of business—we can readily conceive the bureau has before it a labor of no little magnitude, but one that, fairly accomplished, cannot fail to be beneficial and of lasting value.

Further evidence of the work of the congress is apparent in the organization of a commission of experts to project the long-contemplated inter-continental railway—a scheme that, dependent upon individual effort, would doubtless require many years for accomplishment, but undertaken under international auspices we may hope will be pressed to a speedy conclusion.

The assembly of delegates to consider a monetary unit for the republics of the two continents is also the result of the congress. The progress of this conference will doubtless be watched with peculiar interest, coming as it does when our own people are in the midst of a reactionary effort to habilitate silver as a standard coin.

The revolution a year ago that gave birth to the United States of Brazil, it was feared by many would lead to a state of anarchy that would end disastrously to the new nation and perhaps involve neighboring states. Fortunately these forebodings have

not been realized, and the recent general election in Brazil, which seems to have been conducted without violence, has caused a feeling of confidence that we may well believe will continue and permit this great state to enter heartily into the new era of material development that seems opening to our sister republics.

Work on the construction of the Nicaragua canal has steadily progressed during the year. A harbor for light-draft vessels has been constructed at San Juan del Norte, and satisfactory progress has been made in constructing the railway designed to facilitate the work of excavation. It has been hoped by the friends of this project that the canal would be constructed with funds raised by private subscription. The admirable management of the preliminary work of surveying and organization were good grounds for their belief; but the bill recently introduced in Congress asking a guarantee for one hundred millions of bonds to be issued, indicates that expectations of friends were too sanguine, and that the financial backing that had been believed to be assured has for some reason not been developed. This may be only a temporary alarm, due to the general financial stringency that has prevailed during the past few months, and on the recurrence of an easier money market the necessity for the relief asked from Congress will disappear.

The Panama canal project, supposed to have been abandoned in hopeless financial ruin, has recently been revived, with new concessions extending the period for construction, and, it is currently reported, a scheme for a colossal lottery company for raising the means for prosecuting the work. It seems incredible that this canal shall become a fact in this generation; but if it is the feasible route its projectors claim, it is not improbable that the demands of a future generation may necessitate its construction.

A year ago I commented upon the improvement of the Mississippi river. Since then one of the greatest floods on record has visited the lower river country, devastating a large area. It brought to the settlers in the valley, however, a new experience, and has inspired them with a confidence in the levée system that finds expression in the demand for levées of approved construction from Cairo to the Gulf. The flood of a year ago covered many square miles. A large proportion of the area, how-

ever, was not protected by levées, and another large proportion was only partially protected; and while, therefore, the disaster impressed the general public with a belief that the levées were a failure, the facts really point to the contrary. In former notable floods it has not been unusual for one hundred or more miles of levée to be washed away before the flood subsided, but on the recent occasion there was a total length of less than five miles destroyed in some 1,100 miles of levée that had been believed to be safe. This is a remarkable showing, and has naturally inspired the advocates of the system with greater confidence. It points to the possibility of constructing levées at a reasonable expense that will stand the pressure of water for the height that it has been computed necessary to build them. There is a grave doubt, however, in the minds of some as to whether the computed heights, the levées holding intact, will afford sufficient cross-section to carry off the volume of water draining from the catchment basins. Some interesting computations on this subject have recently been made by General Greely, the chief signal officer,* from observations made during an extended period.

The question raised is not a new one, but, considered in the light of the statistics presented, seems to involve the problem of the improvement of the river with increasing difficulties. General Greely's figures indicate that the cross-section of the lower river will only permit carrying to the sea a volume of about sixty cubic miles of water during an ordinary flood season, and that in the extraordinary flood years, such as 1882 and 1890, the volume to be carried down is about eighty cubic miles, showing an excess of about twenty cubic miles over the capacity of the river in a specified time. These figures should be taken in the nature of a warning; and while it must be admitted that the intricacy of the problem precludes precision, their probable reliability should be carefully studied before an extended levée system is built intended to guarantee protection against exceptional floods.

During recent years the complex and perplexing subject of geographic nomenclature has received the careful consideration of a number of the European nations, with a view to reaching a uniformity in treatment and the transliteration of names of unwritten languages into Roman characters. England, France, and

* North American Review, May, 1890.

Germany have adopted substantially the same system of rules. Recent publications from these countries evidence the intention to apply them as rapidly as circumstances will permit. Although we may rebel at first on seeing such familiar names as Cairo spelled with a K, Mecca with double k, and Muscat converted into Maskat, it is believed the general principles adopted will eventually receive acquiescence—perhaps half-hearted at first—and as the utility of the system becomes more apparent through its universal adoption and we realize that maps from whatever nation will give us the names of the same places in substantially the same form, our prejudices must give way.

Under the provisions of an executive order issued on the fourth of September last, our own Government has virtually adopted the European system in the treatment of foreign names, thus bringing us in accord with the principal nations upon a most important subject to students and geographers the world over. The executive order constitutes a board composed of ten representatives from different departments and bureaus of the Government service, to which all questions relating to the work of the board that may arise in the departments are to be referred, and requires all persons in the Government service to respect the decisions that may be rendered. The board in its first bulletin, recently issued, has announced its adoption of the English system for the treatment of foreign names and transliteration into Roman characters, and has presented principles to guide in reaching decisions affecting home names. These principles will doubtless be added to as new questions arise, so that at no very distant day we may see formulated a set of rules that will be instructive as well as useful in their application. The first bulletin seems to have been received favorably, and we may hope, as the work of the board advances and the importance of the subject is more generally realized, that it will gain the hearty endorsement of the public and a support that must largely increase the usefulness of its labors.

In conclusion, permit me to congratulate the society upon its first attempt at scientific exploration in the field. The Mount St. Elias expedition, under the leadership of Mr. I. C. Russell, with Mr. Mark B. Kerr as topographer, left Seattle, Washington, in June last, and after spending more than two months on the mountain sides, one-half their time above the snow line, have

returned with notes, specimens, and data of the greatest interest. The topography was sketched over an area of about one thousand square miles, and includes the determination of the geographical position and elevation of Mount St. Elias and many neighboring peaks. Mount St. Elias is indicated to be not so high by some 4,000 feet as the heretofore accepted elevation, 19,500 feet. The difficulties attending the determination of the height of this mountain are so great that the range between the extreme elevations that have been given by different explorers is nearly 6,000 feet. This is believed to be the first height for it that has been derived from a carefully measured base, and it therefore should receive great weight. But I regret to say that in the chain of triangles connecting with the top of the mountain, the difficulty of placing well-conditioned triangles seems to have been so great that the observers were forced to accept very small included angles, which necessarily casts a doubt upon the resulting distances. We must therefore accept the new elevation with caution until it is verified by further observations.

The party was unfortunately prevented from reaching the top of Mount St. Elias by severe storms, but the ascent was so nearly accomplished that Mr. Russell is confident he found a practicable route; and it seems probable that had he been started ten days or two weeks earlier the first ascent of Mount St. Elias would have been recorded as a part of the work of the expedition.

The full report of this expedition is now nearing completion, and will be published by the Society at an early date. To this I must refer you for the interesting details, and experiences encountered by the explorers.

The expedition was organized by the Society, but in congratulating ourselves we should not forget that our thanks are due to the United States Geological Survey for the assignment of officers to conduct the work in the field and for assistance rendered in the organization; and we may hope the substantial results that have been secured will prove as pleasing to that great national work as they are to your board of managers.

Washington, January 23, 1891.